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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/412,099	10/04/1999	AKRAM M. HOSAIN	NORT-0013-US	9210

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EXAMINER

PAN, YUWEN

ART UNIT

PAPER NUMBER

2682

DATE MAILED: 05/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/412,099

Applicant(s)

HOSAIN ET AL.

Examiner

Yuwen Pan

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 3/5/03.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8, 16-22 and 24-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 16-22 and 24-39 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Response to Arguments

1. Applicant's arguments filed 3/05/2003 have been fully considered but they are not persuasive.

Applicant's argument is that Rai et al doesn't disclose an accounting unit that has an entry indicating a quality of service and another entry indicating mobility management, and there is no teaching in Rai that its accounting packets contain another entry to indicate mobility management.

The examiner does not agree, because Rai et al clearly indicated two fundamental elements, QoS and mobility management in a packet-based communication system (see column 19 and lines 49-67), and one entry to indicate mobility management (see column 2 and lines 36-40 and column 29 and lines 53-65).

DETAILED ACTION

Claim Objections

2. Claim 6 is objected to because of the following informalities: claim 6 is a dependent claim of cancelled claim 4. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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4. Claims 1-3, 5, 7, 8, 16-19, 21, 22, 24-31, 34-38 are rejected under 35 U.S.C. 102(e) as being anticipated by Rai et al (US006377982B1).

With respect to claim 1, Rai et al disclose a method of accounting for services provided over a packet-based network including determining a type of service (internet service or wireless service) used over the network (see column 36 and line 45-51); monitoring usage of the service (see column 36 and line 52-67); collecting accounting information based on the type of service and usage of the service (see column 2 line 56 – column 3 line 5, figure 22, and column 31, line 47-column 35, line 64), where in collecting the accounting information includes compiling the accounting information, user name, service type, etc. into an accounting unit, wherein the accounting unit has a first entry to indicate a quality of service (see column 18 and lines 60-62) provided over the packet-based network, and a second entry to indicate mobility management (see column 2 and lines 36-40).

With respect to claim 2, Rai et al further disclose transmitting the collected accounting information the at least another entity where the user is roaming (See column 26 and line 6-20).

With respect to claim 3, Rai et al further disclose an identifier (shared secret) with collected accounting information that is common between the first entity and the at least one other entity (see column 35-42).

With respect to claim 5, Rai et al further disclose an accounting unit having a common format for convenient exchange between entities (see column 28 and line 26-37).

With respect to claim 6, Rai et al further disclose an accounting unit including a traffic matrix segment (see column 29 and 30, numbered list only)

With respect to claim 7, Rai et al further disclose determining the type of service includes determining one of a plurality of service types, wherein collecting the accounting information comprises collecting and additional entry assigned a value to indicated a type of service (see column 38 and line 15-40, column 29 and line 5).

With respect to claim 8, Rai et al further disclose determining one of the plurality of service types include determining one of real-time communication at least another type of service (See column 16, and line 4-14).

With respect to claim 16, Rai et al disclose a method of accounting for services provided over a packet-based network, including communicating units of accounting information carrying information regarding usage of the packet-based network, the unit of accounting information having a predetermining format capable of being exchanged between a plurality of entities; and assigning values to entries in each unit of accounting information based on usage, the unit including an entry indicating a quality of service provided over the a packet-based network and a entry containing a network access identifier of the terminal to uniquely identify the terminal (see column 18 and lines 60-62, column 29 and 30, numbered list only).

With respect to claim 17, Rai et al further disclose information also includes other parameters like type of service (see column 29 and line 5).

With respect to claim 18, Rai et al further disclose assigning values to entries further includes assigning values to additional entries including entries indicating usage of a radio interface, indicating usage of a visited network, indicating usage of mobile management, an dedicating an amount of data transferred (see column 9 and lines 1-45, column 42 and lines 1-19, column 22 and lines 26-31).

With respect to claim 19, Rai et al further disclose assigning values to entries further includes assigning a value to an additional entry indicating erroneous termination of communication (see column 22 and line 33-39).

With respect to claims 21, 27, and 29, Rai et al disclose a system capable of being couple to a packet-based network including a controller to collect usage information based on a service used by a node on the packet-based network (see column 2 and lines 56-67); a storage device containing an accounting unit in which the usage information is collected, the accounting unit including a plurality of entries to identify usage element from which accounting may be derived. (see figure 2, items 48, and column 6 and lines 34-55), the accounting unit has a first entry to indicate a quality of service (see column 18 and lines 60-62) provided over the packet-based network, and a second entry to indicate mobility management (see column 2 and lines 36-40).

With respect to claim 22, Rai et al further disclose the entries of the accounting unit include an entry identifying a type of serviced used (see column 38 and line 15-40).

With respect to claim 23, Rai et al further disclose the entries of the accounting unit include an entry identifying a quality of service used (see column 19 and lines 51-67).

With respect to claim 24 and 25, Rai et al further disclose the entries of the accounting unit include entries indicating elements used by a mobility management, usage of a visited network, a traffic segment (see column 41, line 66-67, column 42 and line 1-19, column 9 and lines 1-45, column 29 and 30, numbered list only).

With respect to claim 26, Rai et al further disclose the accounting unit is according to a predetermined format the system further including a unit to communicate the accounting unit to another entity (see column 28 and line 26-37).

With respect to claim 28, Rai et al further disclose the accounting processor is adapted to generated billing to a subscriber base on one or more of the accounting units (see column 28 and lines 9-20).

With respect to claim 30, Rai et al further disclose the one or more storage media contain instructions that when executed causes the system to further communicate the accounting units to another entity (see column 26 and line 6-20, column 28 and line 26-37).

With respect to claim 31, Rai et al disclose a data network with an accounting system including at least two entities (home network and foreign network), the data with on or more code segments (see column 29 and 30, numbered list only) for services used on a packet based data network, the instructions when executed causing a system to receive accounting units from at least another entity; determine, from each accounting unit, usage of a service on the packet based network; and charging at least a subscriber for the usage of the service (see column 2 and lines 56-67), the accounting unit has a first entry to indicate a quality of service (see column 18 and lines 60-62) provided over the packet-based network, and a second entry to indicate mobility management (see column 2 and lines 36-40). .

With respect to claim 34, Rai further discloses assigning a value to the additional entry comprises assigning one of plural values corresponding to plural types of service (see column 29 and lines 5-7).

With respect to claim 35, Rai further discloses the service comprise real time communication and at least another type of service (see column 16 and lines 4-15).

With respect to claim 36-38, Rai further discloses communicating the unit of accounting information comprises communicating a traffic matrix segment having a header and plural rows,

each row containing information associated with a session having a given time duration; assigning values to entries further includes assigning values to additional entries containing source and destination network address and monitoring usage of services on the packet-based network with an accounting meter, wherein assigning values to the entries is performed by the accounting meter (see column 41, line 66-67, column 42 and line 1-19, column 9 and lines 1-45, column 29 and 30).

With respect to claim 39, Rai further discloses the usage elements comprise quality of service, usage of air interface, and a network access identifier (see column 22 and lines 26-32).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 32, 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rai et al (US006377982B1) in view of Brown (US005740361A).

With respect to claim 14, Rai et al disclose a method of accounting as cited in claim 1, Rai et al do not disclose determining a metering class of the service that indicates if the service is chargeable. Brown discloses determining a metering class of the service that indicates if the service is chargeable. See column 13, line 56 –column 14, line 9 and column 16, line 22-54. It would have been obvious to one of ordinary skill in the art at the invention was made to combine

the teaching of Brown with Rai et al such that information in the information field permits the service to distinguish whether the service is chargeable (see column 13 and line 56-65).

With respect to claim 32 and 33, Rai et al disclose the data structure includes a plurality of entries, the entries including a type of service, a second field indicating if the service is chargeable, a third field including an identifier identifying a node using the service, a field indicating if mobility management is provided for the node, a field indicating usage of a radio interface by the node, and a field indicating usage of a visited network by the node. See column 9 and lines 1-45; column 41, line 66-67 and column 42, line 1-19. Brown further discloses a field indicating if the service is chargeable (see column 13 and line 56-65).

7. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rai et al (US006377982B1) in view of Stephens et al. (US006347079B1).

Rai et al disclose a method of accounting as cited in claims 1, 16-19. Rai et al do not disclose assigning values to entries further includes assigning a value to an additional entry indicating an amount of discarded data. Stephens et al disclose the possibility of discarded data is indicated (see column 1 and lines 22-28). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Stephens et al with Rai et al such that the network is acknowledge the amount of data is discarded.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yuwen Pan whose telephone number is 703-305-7372. The examiner can normally be reached on 8-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on 703-308-6739. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-0377.


Yuwen Pan
May 19, 2003


VIVIAN CHIN
SUPERVISORY PATENT EXAMINER
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5/19/03